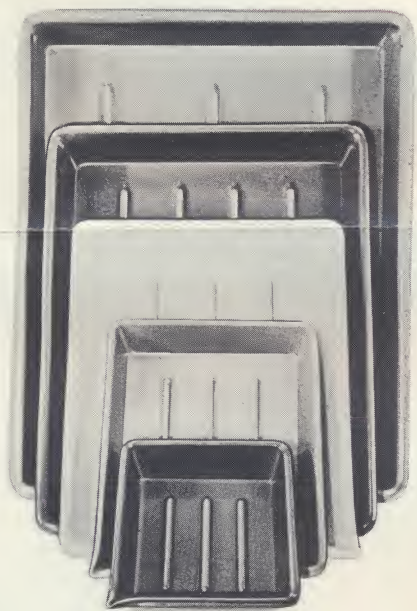


New Processing Trays

CHEMICALLY NEUTRAL DUKALIT PVC

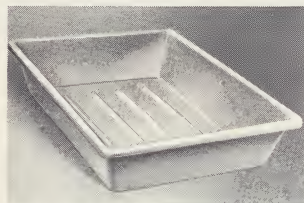


Lightweight but extraordinarily chip-proof and sturdy, PVC plastic makes these processing trays totally impervious to all chemicals. They have a smooth non-porous finish that won't scratch emulsions. Easily and quickly cleaned to avoid cross-contamination of chemicals. For the ultra-careful darkroom technician, a variety of colors permits instant identification.

Ribbed bottoms assure flow of chemicals under as well as above the print for proper and thorough immersion. Pouring spout eliminates drip and spatter when returning chemicals to their containers.

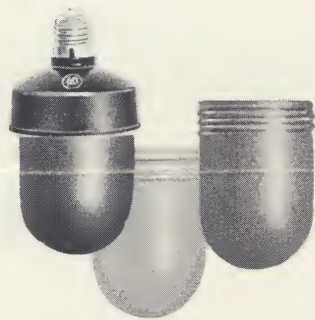
Available in tones of green, yellow and red.

Stock Number	PRINT SIZE	TRAY SIZE
23991	3x4	7" x 6" x 1 3/8"
23992	4x5	6 1/4" x 8" x 1 3/4"
23994	5x7	7 3/8" x 9 3/8" x 1 3/4"
23990	8x10	10 1/2" x 13" x 1 3/4"
23997	11x14	15" x 19" x 2 1/4"
23989	16x20	19" x 23 1/2" x 1 3/4"
23988	20x24	23 1/2" x 26 3/4" x 2 3/4"



DEEP TRAYS, PVC

23121	7" x 9 1/2" x 4"
23122	9 1/2" x 11 3/4" x 4"
23123	11 3/4" x 15 3/4" x 4"
23124	15 3/4" x 20" x 4 1/4"
23125	20" x 24" x 4 1/4"



Interchangeable Globe Safelights FOR BOTH AMATEUR AND PROFESSIONAL

A 15 watt bulb safelight 6 1/4" high x 3 1/2" diameter. Six different filter globes can be screwed into one basic socket for an unlimited range of paper sensitivities. Entire unit can be screwed into any household lamp socket. In addition to their practical application in dark rooms they are now also being used as corridor guide lamps in larger photo laboratories. Complete units of socket and specific globe may be purchased or separate sockets and separate filter globes. Supplied without bulbs.

Complete units with bakelite socket		Filter Globes Only		
Stock Number		Stock Number	Color	Application
22540	with OLIVE GREEN filter globe	22544	with PAN GREEN filter globe	Bromide paper
22541	with ORANGE filter globe	22548	with VARIGAM filter globe	Bromide paper
22542	with YELLOW filter globe			Contact paper
22543	with RED filter globe	22547	Bakelite SOCKET only	Orthochromatic material
				Panchromatic material
				Varigam paper
				High Speed Papers

Professional Safelights

Kindermann safelights take the "dark" out of the dark room safely. With solidly constructed light-leak-proof housings and broad range of filters, they provide just the right amount of light to take the eye strain out of processing procedures... even with many of today's panchromatic and ultra sensitive papers. Two lamp types, each with six different filters, are now available.

No. 22525 180° degree swivel model. Easily attached to wall, bench or table top. Housing is self-ventilating and has a built-in reflector. 4¾" x 3½" frosted area ideal as a light box for negative inspection. Entire front mount quickly interchanged with flat safelight filters.

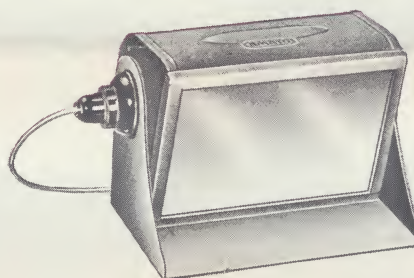
No. 22568 Wall safelight with all the features found in unit described above, plus... interchangeable filter size is larger, 8¼" x 6¼" and push-pull light control. Entire housing is completely corrosion-proof, heavy duty plastic. Overall dimensions — 10¾" x 6½" x 9½".

No. 22555 180° degree swivel, wall safelight with seven interchangeable filters as listed in chart below. Self ventilating housing with built-in reflector. Frosted section excellent for negative inspection. Entire unit and filters made of heavy duty PVC. Size: 10⅞" x 6¾" x 7½". Supplied with one filter of your choice. Filter size: 4¾" x 3½".

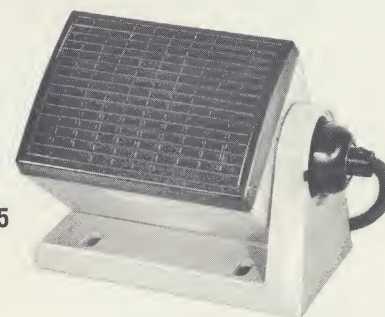
No. 22568



No. 22525



No. 22555

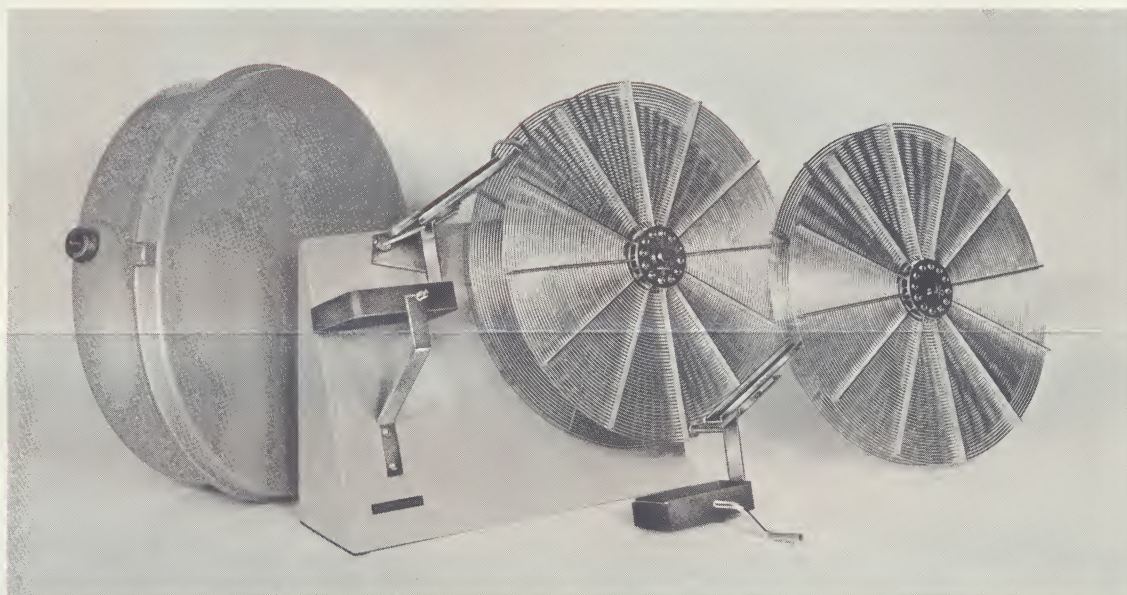


SAFELIGHT INTERCHANGEABLE FILTERS

Two outside layers bound solidly together by an inner layer. The inner layer is a permanently dyed, non-fading viscose. The entire filter is thus highly resistant to fracture and is haze free.

5" x 3½" FILTERS FOR SAFE LIGHT 22555	4¾" x 3½" FILTERS FOR SAFE LIGHT 22525	8¼" x 6¼" FILTERS FOR SAFE LIGHT 22568	COLOR	PROPERTIES and LIGHT LEVEL	APPLICATION	LIGHT SOURCE	WATTAGE
22556	22330	22360	YELLOW	complete blue absorption very bright	All contact papers (chlorobromide)	direct	15-25
22557	22340	22361	ORANGE	bright	Portrait and contact papers Bromide papers	direct indirect	15 15
22558	22350	22362	RED	bright	Highly sensitive reproduction & slide emulsions Dental film and X-Ray	direct indirect	15-25 25
22559	22352	22363	BROWNISH YELLOW	medium bright	Varigam paper	direct	15
22560	22321	22364	OLIVE GREEN	bright allows reliable judgement of contrast	Bromide papers	indirect	15-25
22561	22324	22365	PAN GREEN	medium bright, non-faded	Pan-material	indirect	15-25
22562	22331		VARIGAM	medium bright	Varigam & Poly contrast paper	direct	15

Kindermann Film Processing Systems



Kindermann provides the broadest range of precision film processing systems available... from 16mm to 90mm. They are designed to equip the professional darkroom with convenient, easy to handle tools. They are built of the finest materials for long years of service. Their versatility and interchangeability permits the most efficient utilization of time and materials in the darkroom.

PVC TANKS FOR 100 FT. REEL

Kindermann processing tanks are made of polyvinyl chloride plastic, a chemically neutral material that is not affected in any way by any photographic solutions used in the darkroom. They are light in weight. They can't chip or dent and retain their shape through years of heavy-duty, continuous use.

100 FT. STAINLESS STEEL REELS

Kindermann stainless steel reels load conveniently,

without bunching or jamming film. They enable the user to develop, wash and dry without removing the film from the reel. Just one simple loading for the entire processing procedure. Stainless steel clip simplifies starting a roll on the reel.

LOADING STAND

Kindermann's loading stand simplifies darkroom loading. It accommodates 4 different size reels and holds the reel, film guide and film, freeing the user's hands. The front panel is tilted back to prevent reels from accidentally slipping off the spindle, and keep the components in perfect alignment.

FILM GUIDE

The Kindermann film guide prevents fingerprints and scratches on the film. A spring in the film guide loader gate keeps film under constant tension to assure perfect feeding into the reel.

	16mm 32 Ft.	16mm 100 Ft.	35mm 32 Ft.	35mm 100 Ft.	46mm 100 Ft.	70mm 18 Ft.	70mm 100 Ft.	90mm 18 Ft.
Stainless Steel Reel	25140	25130	25141	25131	25132	23206	25133	23208
Loading Stand	25145	25155	25145	25155	25155	23207	25155	23207
PVC Developing Tank, with light-tite cover	25147	25160	25147	25160	25160	23212	25160	23212
PVC Washing and Bleaching Tanks	25198	25165	25198	25165	25165	23211	25165	23211
Fast Washing Insert with Hose Connector	NR*	25166	NR*	25166	25166	NR*	25166	NR*
Film Guide for Loading Stand	NR*	25150	NR*	25151	25152	NR*	25153	NR*

*Not required

New Channel-Free Film-Hanger and Automatic Film-Hanger Loader

Saves pictures in processing . . . saves time in loading



NEW TYPE FILM HANGER has no channels to accumulate processing solutions or emulsion residues. Eliminates possibility of electrolytic action, discoloration or uneven development. Each film sheet suspended from 4 spring pins, never comes in contact with film hanger frame. Stays put throughout entire processing procedure . . . right through washing and drying.

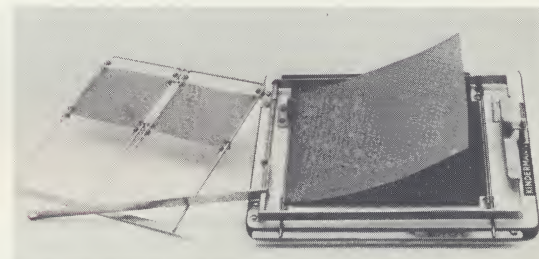
Stainless steel hangers available for either Kindermann or Kodak tanks. Please specify.

NEW CHANNEL-FREE FILM HANGER eliminates possibility of electrolytic action, discoloration or uneven development. Film sheet suspended from 4 corner spring pins. Film does not contact hanger frame.

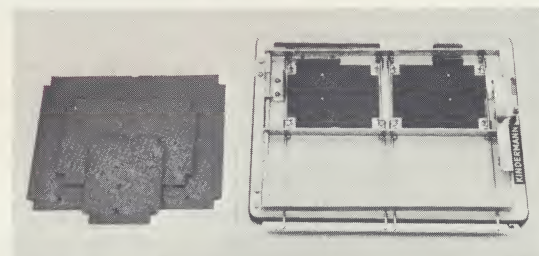
Number		
For Kodak Tanks	For Kindermann Tanks	
20006	23356	8 x 10 Sheet Film Hanger
20004	23354	5 x 7 Sheet Film Hanger
20003	23353	4 x 5 Sheet Film Hanger (Holds two 4" x 5")

NEW TYPE LOADER has simple, 1, 2, 3 operation. Locks film flat into hanger by means of spring pins at all four corners. Takes but seconds to adjust for loading 8" x 10", 5" x 7", or two-up 4" x 5".

Simple procedure: Appropriate size film template is placed on loader base. Swinging bar is then pressed down to unlock 4 corner pins. Film is placed into position and bar released. Pins automatically lock film flat into hanger.



AUTOMATIC FILM HANGER LOADER shown at right is an 8 x 10 in position prior to being locked flat by means of four corner spring pins in film hanger. At left is a film hanger loaded with two 4 x 5s.



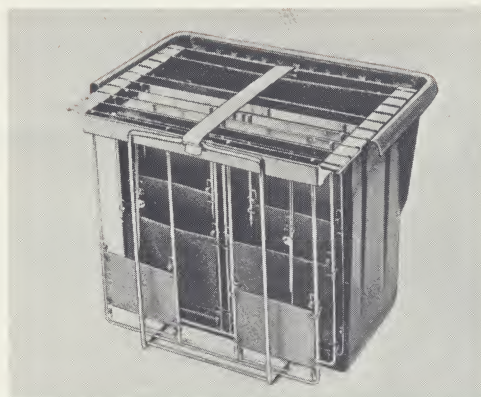
Number	
23350	Universal Sheet Film-Hanger Loader (accommodates 8" x 10", 5" x 7", and 4" x 5") hangers.

Shown above at left are the templates for 8 x 10, 5 x 7 and 4 x 5 sheet film. At right are two 4 x 5s locked flat into the hanger in the film hanger loader.

Processing Basket

Kindermann's stainless steel insert basket holds up to 10 channel free sheet film hangers or roll film hangers for 35mm or 60mm. Keeps film separated, allowing solutions to reach all parts of film. Permits developing various size films (4x5, 5x7, 8x10) simultaneously. Clamping device locks in hangers. Fits Kindermann 3½ gal. developing tanks.

23388 Basket for film hangers, stainless steel with clamping device.



TANKS • Stainless Steel • PVC • and Combinations

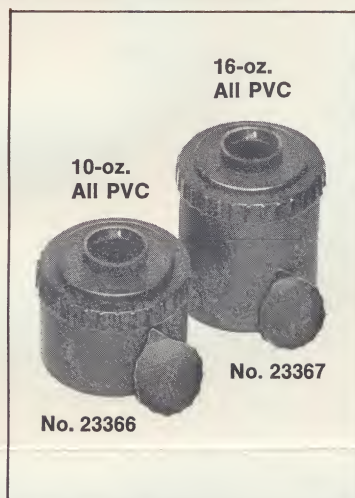
Kindermann Tanks are designed to fulfill the needs of the darkroom hobbyists to the professional lab technician.

Three basic groups.

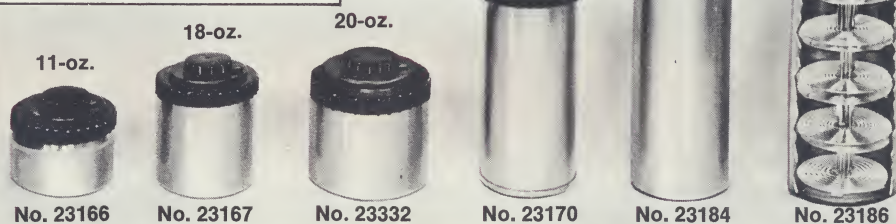
11-oz. capacity to 34-oz. capacity with fast-fill, interchangeable PVC tops and stainless steel tanks.

61-oz. capacity and 120-oz. capacity in all stainless steel.

10-oz. and 16-oz. in all PVC including interchangeable tops.



All tank capacities shown are without reels.



TANK REEL CAPACITY

REEL SIZE	120-oz.* Tank (No. 23186)	61-oz.* Tank (No. 23184)	34-oz. Tank (No. 23170)	18-oz. Tank (No. 23167)	11-oz. Tank (No. 23166)
16mm (No. 23169)	—	11	7	3	1
Instamatic (No. 23129)	11	6	3	1	1
35mm (No. 23195 20 EX) (No. 23196 36 EX)	14	8	4	2	1
127 (No. 23197)	11	5	3	1	—
120/620 (No. 23198)	8	4	2	1	—

* Should you wish to utilize the Center flow rod in these tanks, deduct 1 reel from each of the listings above.

It's here... the four most efficient developing tanks today! 11-oz., 18-oz., 20-oz. and 34-oz. All are fast fill, no spill, stainless steel tanks with the new, interchangeable "DUKALIT" light-tight tops. These tops are made of chemically neutral polyvinyl... slip on easier... can't stick, will not warp, break or change shape. Exclusive design with a single vent and internal light baffles, seals better, won't leak light or solution. Yet these easy to grip, knurled-edge tops come off with a twist.

Exclusive KINDERMANN "Internal Flow Control" permits swift fill... none faster. Solution surges immediately around all film surfaces and, even with today's highly active, fast working developers, streak-free processing is assured. Drain time is just as fast... a mere 8 seconds for 18 ounces!

All KINDERMANN tanks have steel where steel is needed... unbreakable, easy to clean, chrome-nickel stainless steel! Transmits temperature adjustments quickly and efficiently. And the famous KINDERMANN double coil stainless steel reels load easily... film winds on smoothly and freely.

No. 23166 "5-Second" 11-oz. capacity Tank. With new PVC single vent interchangeable top and stainless steel tank. See chart on this page for reel capacity.

No. 23167 "8-Second" 18-oz. capacity Tank. With new PVC single vent interchangeable top and stainless steel tank. See chart on this page for reel capacity.

No. 23332 "14-Second" 20-oz. capacity tank for 220 film. With new PVC interchangeable top and stainless steel tank.

No. 23320 "20-Second" 45-oz. capacity tank for 220 film double reel. With new PVC interchangeable top and stainless steel tank.

No. 23170 "Multi-Reel" "16-Second" 34-oz. capacity tank, with new PVC single vent fast fill, interchangeable top. This tank permits the processing of different film sizes at the same time. See chart on this page for reel capacity. Lift rod included.

No. 23184 "Center Flow" 61-oz. Tank. Stacks many reel combinations. See chart on this page for reel capacity. Reels can also be stacked on hollow "Center Flow" tube and washed by simply connecting water hose. Maximum capacity of 67 ounces.

No. 23186 "Center Flow" 120-oz. Tank. See chart on this page for reel capacity.

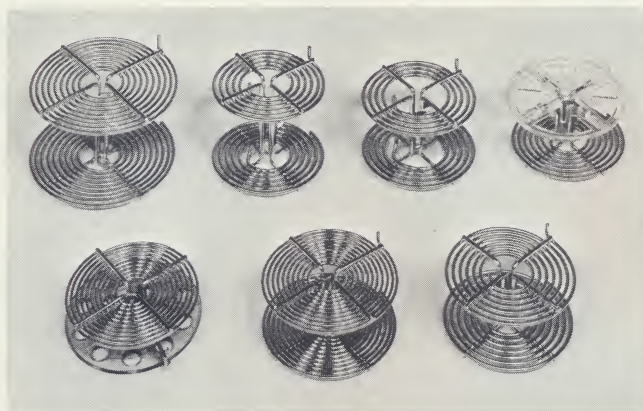
No. 23187 "Center Flow" lift rod for 61-oz. tank (No. 23184), with attachment for hose.

No. 23188 "Center Flow" lift rod for 120-oz. tank (No. 23186), with attachment for hose.

No. 23175 PVC Interchangeable top for tank No. 23166, 23167 or 23170.

Two New All PVC Tanks 10-oz. and 16-oz.

PVC stands for polyvinyl chloride... one of the miracle plastics that is ideal for tanks. It does not dent, chip, crack or break. Chemically neutral, it is not stained or affected by processing chemicals. Accept Kindermann and other stainless steel reels. Tank covers made of PVC can be used interchangeably with the two new all PVC tanks as well as the 11 oz. and 18 oz. stainless steel tanks. The two new tanks are priced for volume and will increase multiple unit sales.



Stainless steel film reels

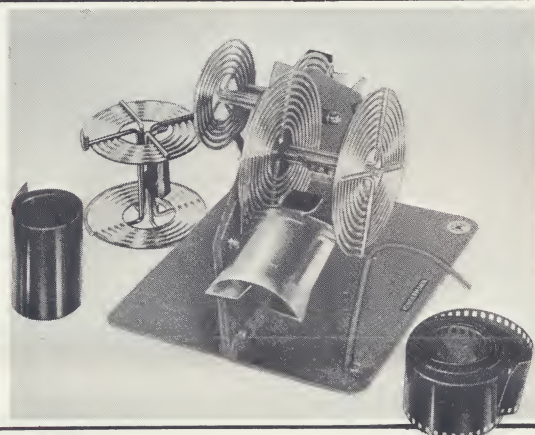
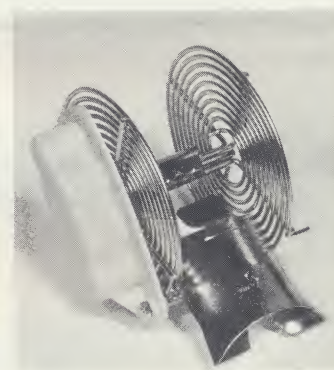
Order number

23169	Reel for 16mm film
23129	Reel for 126 film, Instamatic
23195	Reel for 35mm film — 20 exposure
23196	Reel for 35mm film — 36 exposure
23197	Reel for 127 film (45mm)
23198	Reel for 120/620 film (60mm)
23331	Reel for 220 film (60mm)
23206	Reel for 70mm film (18 feet)
23208	Reel for 90mm (18 feet)

Film reel self-loaders

All Kindermann reels can be loaded directly by hand, however, these reel self-loaders simplify the procedure. No kinks... no scratches... no binds... no fingerprints... no film stuck together... no frayed nerves! This is the easy answer to foolproof reel loading. Consists of reel spindle and precision guide rail. Film is guided in by the edges, eliminates all danger to emulsions. Very easy to use. Saves time. Fits Kindermann reels.

No. 23220 Loader for 35mm reels No. 23195 or No. 23196
 No. 23221 Loader for 120/620 reel No. 23198
 No. 23222 Loader for 127 reel No. 23197
 No. 23333 Loader for 220 reel No. 23331
 No. 23207 Loader Stand for 70mm and 90mm reel No. 23206



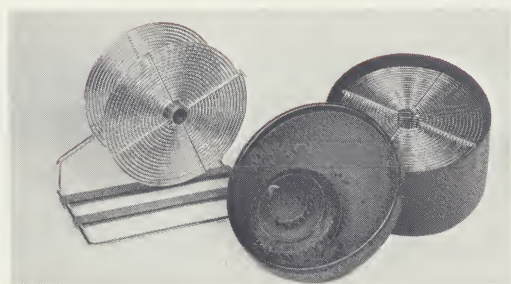
Twin reel-loader

No. 23234 A time saver for quantity processing. This Twin Reel-Loader is designed for use with 35mm and 120/620 film. The film is fed into the built-in spring clip at the core of the reel by means of a flexible feeder. Turn the handle and the film is wound safely and quickly into the reel grooves. An important addition to any professional photo lab.

No. 23208 Twin Reel Loader for use with 120 and 220 film.

NOTE: Twin Reel Loaders for any combination of film sizes available on special order.

70mm (18 ft.), 90mm (18 ft.) and 35mm (32 ft.) Processing Systems



Complete system composed of the units indicated in the chart below.

	35mm 32 Ft.	70mm 18 Ft.	90mm 18 Ft.
Stainless Steel Reel	25141	23206	23208
Loading Stand	25145	23207	23207
PVC Developing Tank, with light-tite cover and reel-turning handle for agitation	25147	23212	23212
PVC Washing and Bleaching Tanks	25198	23211	23211
Fast Washing Insert with Hose Connector	NR*	NR*	NR*
Film Guide for Loading Stand	NR*	NR*	NR*

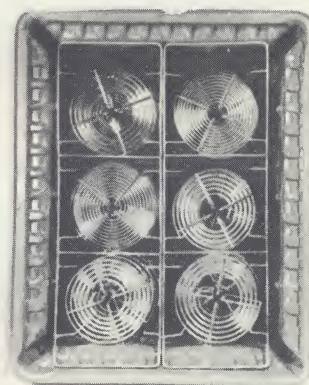
*Not required

Developing and Processing

PVC Tanks and
Stainless Steel Baskets



Kindermann deep tanks are made of "Dukalit" PVC plastic. PVC (Polyvinyl chloride) is a high impact, extremely strong plastic that is light in weight, easy to handle, convenient to store or ship. It is chip resistant, wear resistant and totally unaffected by any kind of photographic chemical. Available in 3½, 2¼ and 1½ gallon capacity, each is designed for Kindermann and other makes of sheet film hangers or reels in stainless steel baskets. The inner surfaces at the top are fluted and ribbed for both extra strength and rigidity and to provide sufficient separation between the sheet film hangers. All other surfaces are smooth without seams or sharp edges. All four inside corners are curved for easy and fast cleaning.



3½ Gallon Size

- 23451 Tank for Developing or Fixing
- 23457 Light-tite Lid for Developing Tank
- 23458 Floating Lid for Fixing Tank
- 23452 Washing Tank with siphon
- 23999 Air Injection Thoro-Wash Tank
- 23385 Stainless Steel Reel Basket
Reel Capacity: 30 35mm, or 30
Instamatic, 24 127 or 18 120/620

2¼ Gallon Size

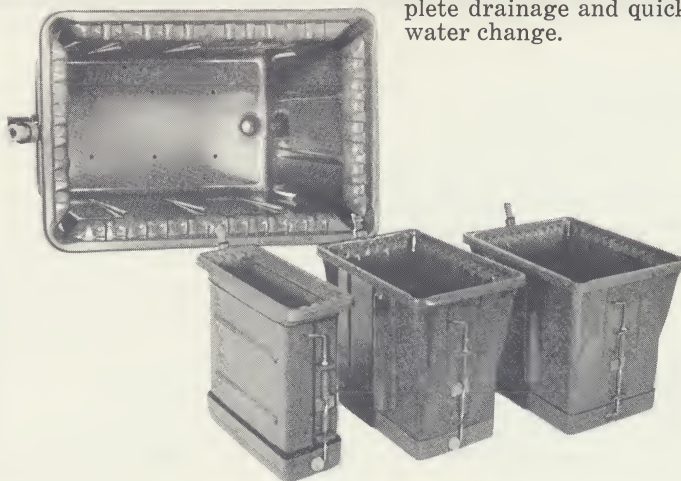
- 23447 Tank for Developing or Fixing
- 23443 Light-tite Lid for Developing Tank
- 23905 Floating Lid for Fixing Tank
- 23448 Washing Tank with siphon
- 23998 Air Injection Thoro-Wash Tank
- 23382 Stainless Steel Reel Basket
Reel Capacity: 25 35mm, or 25
Instamatic, or 20 127 or 15 120/620

1½ Gallon Size

- 23091 Tank for Developing or Fixing
- 23093 Light-tite Lid for Developing Tank
- 23094 Floating Lid for Fixing Tank
- 23092 Washing Tank with siphon
- 20020 Air Injection Thoro-Wash Tank
- 23381 Stainless Steel Reel Basket
Reel Capacity: 15 35mm, or 15
Instamatic, or 12 127, or 9 120/620

Thoro-Wash Tanks

Thoro-wash, with a unique water intake line which also draws in a steady flow of air. The air is then injected through holes in the bottom of the tank. The constant flow of water and bubbles washes film free of all processing solutions. In addition, the air injection system flushes solution residues to the top for quick elimination through the large overflow drain. A quick-vent lever facilitates fast and complete drainage and quick water change.

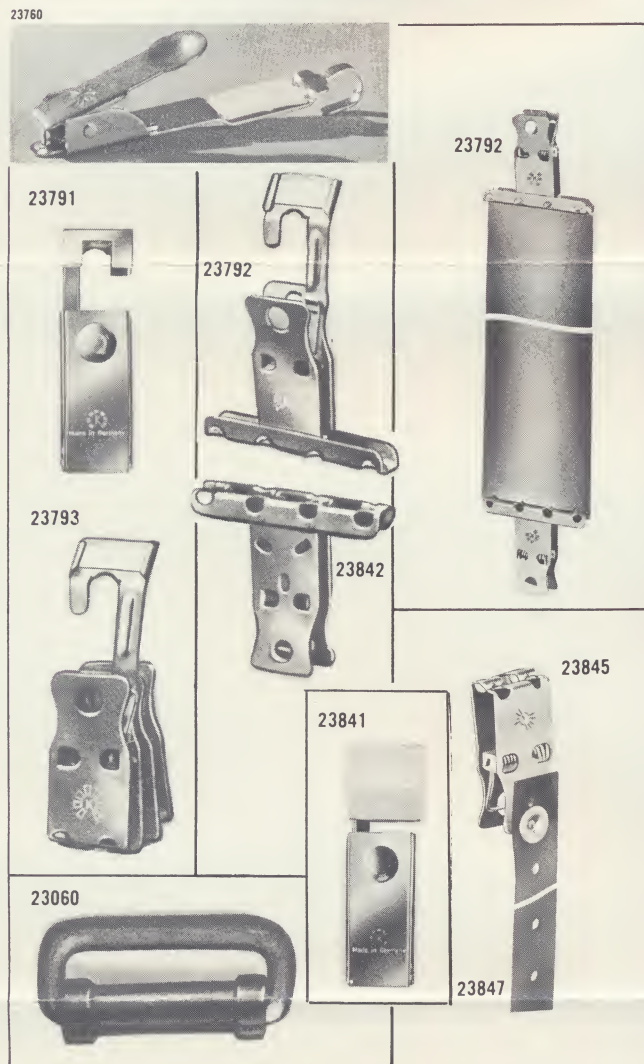


Film Clips and Weights

Available in a wide variety to meet every need. They are made of stainless steel of a quality and caliber that renders them virtually indestructible by photographic chemicals, or by rough, constant use. They are ingeniously designed to serve specialized functions... to do a better job more easily, more securely and with a mini-

mum of fuss and handling. In chemicals, they offer little hindrance to the free flow of solutions to and around film. Clips grasp and hold... firmly, securely.

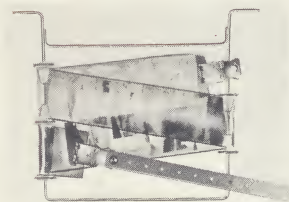
If you've always taken film clips for granted... never thought of them as specialized adjuncts to proper processing, these will change your mind!



Number	Description
23791	1" stainless steel clip, complete with hook and slot for identifying tab. 3 1/4" long. Box of 12.
23841	1" stainless steel film clip with lead weight for free end hanging film strip. Box of 12.
23793	1" double stainless steel clip for looping 35mm film strips. With hook and slot for identifying tab. Box of 12.
23060	Punched plastic roller with lead weight for use with 23783 (at bottom of the loop) 2 1/2" wide. Box of 12.
23792	2 3/4" stainless steel film clip for all films from 70mm and up. Complete with hook and slot for identifying tab. Box of 12.
23842	2 3/4" clip and weight for free end of film strip from 70mm and up. Box of 12.
23760	Special clip for processing, viewing, drying dental and other small-format X-ray plates. Provides firm, secure grip with minimum insertion of plate. Cannot damage picture area, since only 1/8" of film is inserted. Box of 12.
23845	Stainless steel tension clip, complete with adjustable rubber strap, positioned and held by button and button-hole arrangement. Used for processing roll film in Kindermann film hangers. Box of 12.
23662	Double tension clip with button for rubber strap. 1" wide x 2 3/8" long. Box of 12.
23847	Special rubber strap for above tension clips, 12" long. Box of 12.
23811	(2 3/8" wide x 4" long) Hoop with hook and marking tab for suspending 35mm film. Box of 12.
23661	(1" wide x 2 1/2" long) Lead double-clip weight to be attached to both film ends suspended from hoop No. 23811 above. Box of 12.
23794	(5 1/2" wide) Clip with eyelet and marking tab for larger size sheet film. Box of 12.
23844	(5 1/2" wide x 2 3/8" long) Clip weight for clip No. 23794 above. Box of 12.

Roll Film Hangers, 35mm and 60mm

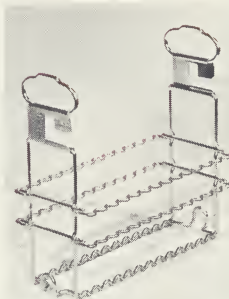
Kindermann stainless steel film developing hangers are the ultimate in convenience and safety for processing miniature rolls of film. They load quickly and the tension clip with rubber band holds film securely in place. They are particularly suited for color film processing.



23955 Miniature film hanger with transparent guides — 35mm

23956 Roll film hanger with transparent guides — 60mm (120/620)

Plate and Film Racks



Stainless steel plate racks hold 12 film plates rigidly in place throughout the entire processing cycle. Convenient handles keep hands out of solutions, keep fingers off film.

23411	Rack, 2" x 2" (5 x 5 cm)
23413	Rack, 2 1/2" x 3 1/2" (6.5 x 9 cm)
23414	Rack, 3 1/4" x 3 1/4" (8.5 x 8.5 cm)
23415	Rack, 3 1/4" x 4 3/4" (9 x 12 cm)
23418	Rack, 5" x 7" (13 x 18 cm)
23416	Rack, 3 1/4" x 4"

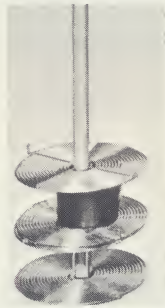
Miniature Drying Cabinet

This versatile film drying cabinet dries rolls, sheets, plates, quickly, safely and gently. Accommodates film in reels, on hangers, in baskets. Permits transfer of negatives direct from developing tanks to the drying cabinet.

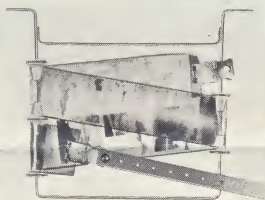
Amazingly compact, the Kindermann Miniature Dryer takes less than 2 square feet of floor space, yet will dry simultaneously as much as:



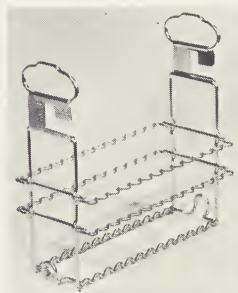
30 - 35mm reels
or
24 - 127mm reels
or
18 - 120/620 reels
or equivalent
IN CAGES



or
9 - 220 reels
or
4 - 70mm reels
or equivalent
ON SPINDLES

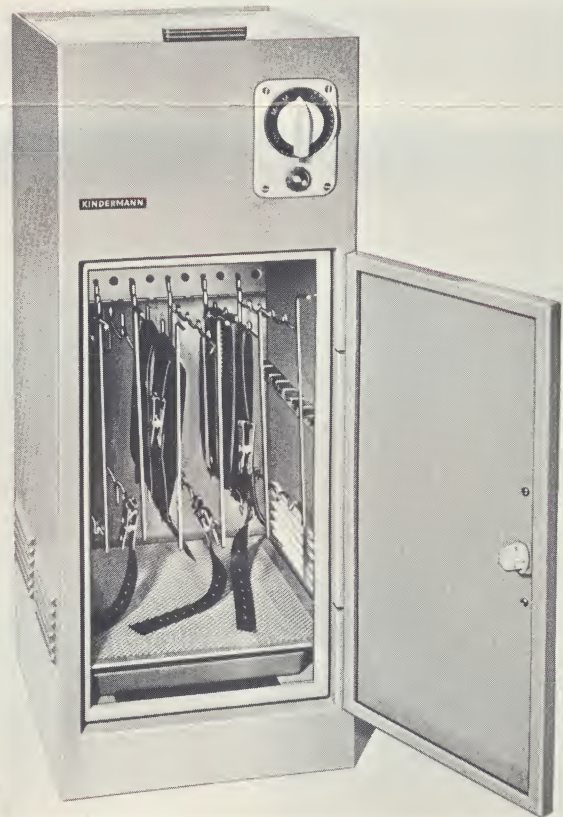


or
6 - 35mm or 127
or
120/620 film rolls
ON HANGERS



or
48 plates up to 5 x 7
**IN PLATE
AND FILM RACKS**

or 20 sheet films
2 1/4 x 3 1/4
or 10 sheet films
8 x 10
or equivalent
**IN CUT FILM
HANGERS**
(not illustrated)



Constant temperature control and a built-in 60 minute timer, make negative drying an automatic, worry-free operation. Fan can be operated independently of heating unit.

24422 Miniature Drying Cabinet comes complete with; hanger bracket, shelf, 4 rods, 60 minute timer with pilot light, drip pan, washable air filter, 770 Watt heating, 110 or 220 Volts. (Please specify.) Dimensions: 11.4" x 15.7" x 29.5".